Interspecies

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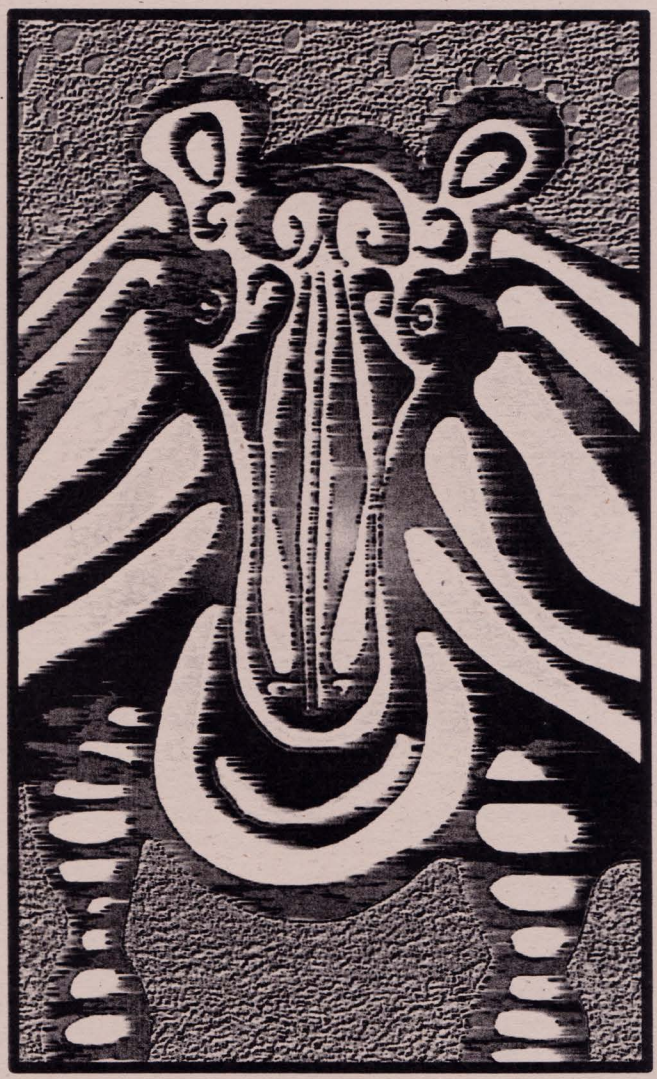
The European Cetacean Society

Interspecies' director Jim Nollman has been on and off the road since September, showing a Powerpoint presentation entitled: How Whales are Transforming our Idea of Animals. *Recent venues have included the Denver Science Museum, Naropa University, a few conferences, and symposia. If you'd like to have him present in your neighborhood, email Interspecies. In March, he gave a special evening presentation at the European Cetacean Society's annual conference, speaking to one of the world's largest gatherings of whale biologists. This is his report.*



It was my most challenging audience. Try to imagine it: a layman, a musician, speaking to a full capacity crowd of the world's whale biologists representing NATO, the US Navy, and just about every university in Europe and North America. I stood before this very bright group of professionals to inform them that their beloved gig is just about up because, well, for quite a while now, a disruptive new biological paradigm has been driving down the turnpike of science in an out-of-control eighteen wheeler. It's noisy. It's accelerating. And be careful because it's going to take a few casualties as it crashes through the field over the next twenty years.

But something was amiss. Besides my small cadre of fans, as well as almost all the students in attendance, practically no one over forty seemed ready to listen, let alone acknowledge that anything resembling a shift was occurring. If my metaphor was an eighteen wheeler, and god forbid it was true, then the people who sat before me rolling their eyes were setting themselves up to be broad-sided .

It's happened before. In the 1920's quantum mechanics swept through the physics world. There were many doubters, including Einstein himself. He resisted, and some believe he squandered the rest of his intellectual life in a quixotic attempt to find flaws in the transformation despite abundant evidence to the contrary. But there it was. The old guard felt tricked; as if they had been caught clinging to some flimsy rug that was being pulled out from underneath them. The shift inaugurated a brand new way to do physics, pre-empting the elegant theories the old guard had grown up cherishing. They were simply left behind, unwilling to accept the new heretic blueprint mapping

the bubbling, writhing world of atoms, energies, and waves that, turned the old established vision of Isaac Newton into an overly simplistic hoax that couldn't be cited without an accompanying footnote explaining that it still applied, but mostly to describe the macro world of human perceptions.

One of the leaders of the new physics, Max Planck, brutally explained the revolution this way. "Truth does not triumph by making its opponents see the light, but because the opponents eventually die, and a new generation grows up learning the new paradigm."

With this grand historical precedent in mind, and bolstered by an attitude that made me feel half the intellectual thug, and half a new age dreamer, I was pleasantly surprised to arrive on Grand Canary Island to discover that the sponsoring organization had found it exceedingly important to make me and my provocative message feel amply welcome. They gave me the largest suite in the best hotel on the beach of Las Palmas, with a hot tub in the room and a king-size bed on a pedestal in front of a ceiling-to-floor picture window so I could prop my head on a pillow to admire a seascape of surfers riding 12 foot waves. It was the only evidence I would uncover, to prove that my presence was appreciated by the conference organizers

I had wrongly assumed that the gathering would be represented by the same diverse group that attended the American Cetacean Society's conference at which I spoke in October, consisting of whale enthusiasts, biologists, activists, whalewatching entrepreneurs, and artists. Everyone there seemed a whale lover first, and my message of transformation was a good fit to the general tone. The audience was ripe to hear about the eighteen wheeler, and most of them already knew about it. My timetable for change prompted them, not to deny it, but to consider other schedules. It felt more like I was preaching to the converted, rather than acting like a bull in a china shop.

At Naropa University, in February, longer version of the same basic talk was sold out. And even after I lost track of time, my story elicited nary a shuffle of impatience from the audience. When I finished, questions poured forth like manna from heaven.

Anthropogenic Fields

The Las Palmas agenda was focused around the broad theme of cetacean acoustics. But there was one overriding issue on everybody's mind, described in the proceedings by the hyperbolic term: "anthropogenic sound". What the phrase actually referred to was a group of papers written by the elite of the marine biology mainstream, either upholding or disputing the U.S. Navy's argument that the killing of entire whale populations was a price worth paying for new sonar technology capable of identifying enemy submarines.

Some of it was patently offensive to this US citizen, and I felt embarassed to observe Navy apologists acting as if they had been caught off guard to discover a few independent-minded foreign biologists so rude as to dispute the government's own assertion of a born-again right of hegemony in defense of acoustic blasts of sound so loud that every deep-diving marine mammal within fifty miles of the source was sure to die from the hemorrhaging of every air sac in its otherwise well-insulated body.

That's a fair description of what happened to a pod of Cuvier's beaked whales a few years back the Aegean Sea off Greece. It then happened to more beaked whales in a well-documented case off the Bahamas. And just four months previous to the conference, a very audacious Spanish government official had demanded that the US Navy quit the waters of the Canary Islands after another so-called "top secret" test decimated a local population of beaked whales. Some secret.

The Apologist and the Lackey

I had breakfast one morning with the apologist-in-chief and his main scientific lackey, both of whom were genuinely nice guys. One of them told me the tale of a Navy commander flying an airship in the gulf of Maine last summer, who for some untold reason, spontaneously decided to drop a payload of bombs into the ocean. Two days later, a highly endangered right whale was spotted in the area, blown in half. It had been the apologist's job to go get the whale before the newspapers got to it.

I asked if Navy pilots often drop bombs whenever they feel like it, and without some form of oversight from the chain of command. He answered without answering, just like the president does at press conferences, that the pilot had been relieved of his post. I asked him if the pilot had intentionally targeted the whale. After all, it's only natural to have a target in mind when dropping bombs. The apologist studied me as if I might be a security risk, then answered with a warm smile that no one in the military knowingly drops bombs on an endangered whale species. How could I disagree? It was, after all, the first time in my life I'd actually met someone who drops bombs for a living and then talks about it over breakfast.

Monkey man by Matthaus Merian, 1670

The other guy, the scientist, Peter Tyack, was a harder read. He is now being sued by a group of activists trying to stop his invasive acoustic research on behalf of the US Navy. One of the activists, Lanny Sinkin, had somehow uncovered the fact that Dr. Tyack had intended, from the start, to violate the terms of his limited research permit. Worse still, the permitting agency, NMFS, knew of the violation from the very start, but took no action. What the permit did allow, was for Dr. Tyack to conduct tests of a single high frequency sonar on migrating Gray Whales, essentially seeking to discover at what volume the whales became irritated enough to veer from their path.

But unexpectedly for the Navy, the California Coastal Commission requested Dr. Tyack to provide a verbal briefing about his planned research. Through questioning, he was forced to reveal a secondary intention to blast the whales with very loud sounds below the permitted high frequency range, and another plan to add a second high frequency source using the same basic sonar system, called SURTASS LFAS, that had decimated the beaked whales in the Bahamas two years earlier. The Navy was caught red-handed, but Tyack was left holding the bag.

When I asked him how he was holding up, he answered that "someone needs to do the science." He then expressed dismay that the activist community wasn't even trying to understand the need for research, preferring a hatchet job with him as whale killer number one. It was all a misguided effort to destroy his credibility.

I expressed empathy for his personal predicament. The Navy was doing a good job staying out of the news. No reporter ever gets to watch the nameless ensign pulling the switch, or the nameless admiral giving the command, or the nameless engineer bolting the monster together. What we do get to see is the front end of the holocaust, the scientists standing

Lion Man by Matthaus Merian, 1670

on some conference podium before a gathering of peers intoning the quantitative results of the tests. Science remains amoral, and scientists work so hard to milk that basic premise for all its worth, especially when it serves some exceeedingly ugly purpose.

He exhausted my empathy, but I tried hard not to show my hand by explaining that activists need to polarize issues just to get the media's attention, and they often do so by attaching a name and a face to an issue. He shook his head in response. I sighed, and thought of a few tragic characters from Shakespeare. I wondered if George Bush was as nice a guy as they say.

Bean Counting

The conference left my artist's sense of what's important in whale science hogtied from start to finish. I was naïve to believe there would be several papers about whale culture and consciousness. I was more surprized to observe that the stated theme of acoustics couldn't prompt a discussion about whale language.

Language has been the main thrust of the Russian beluga scientists I have been observing up close for the past five years. Whale consciousness has been the central theme of every ICERC conference I have attended for the past fifteen years. And didn't the last Marine Mammal Biology conference in Vancouver draw an overflow crowd to a special symposium on the culture of whales? And didn't the success of that event provide the impetus for making culture the central theme of the American Cetacean Society conference last fall?

But the Russian researchers didn't have the funds to attend the ECS conference, so instead they sent an oddly brilliant 20 minute film, unmarred by the authoritative nonsense of a narration, that showed their belugas twirling, eyeballing, and singing in front an underwater camera.

To be truthful, 75% of the papers were variations on the theme of bean-counting. That included a range of talks about acoustic signaling, the physiology of sonar production, quantitative analysis of dolphin whistles, and papers on the latest recording and analysis techniques. But it was all data driven, Microsoft Excel at its most sophisticated, illuminating the numbers biologists feel are important, with nothing advanced about the motivations of the animals, let alone their desire to communicate content. Certainly nothing about communicating with us.

My point is not that any of these papers deserve criticism. But they all bear the aloofness of unimaginative minds building careers founded on the treatment of whales as objects. It's a worldview that never delves beyond the rim of the next stage that treats cetaceans as sentient beings. No one spoke of paradigms in collision.

The silence somehow reminded me of rabbis and priests using the made-up acronym *Jehovah* to refer to the name of God. The irony is that, in the Bible Moses tells his flock that to utter the real name of God will kill the speaker. But no one living today knows what the real name is. If you're a whale, maybe the word is "sonar."

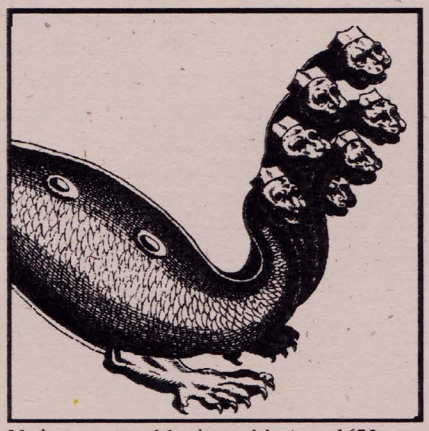
If you are a mainstream biologist it's not the name of God that kills, but the phrases, "cetacean language" and "interspecies communication". The two are imbued with a voodoo power to subvert the rosiest future in the field of whale research.

One young cognitive scientist who noticed the unwillingness of his mentors to recognize the worthiness of either field, mentioned it to a senior scientist on the panel that decided what papers made it to the podium. This elder, at 400 pounds appearing like a small whale himself, told him that these two subjects were deemed taboo by the whale establishment. It had been that way for thirty years, ever since John Lilly made his effusive but wildly intemperate claims about dolphins being "humans of the sea".

When the young man recounted this conversation to me, his idealism had clearly been ruffled. How was it possible, in this day and age, that scientists collude to censor questions worthy of investigation? And what an excuse, to lay the blame for their own censorship on the head of a biologist whose main sin was being way ahead of his time. I reminded him of Galileo's struggle with the Catholic Church in the 17th century. What goes around, comes around.

But when I really thought about it, I realized the taboo cast a strange light on the LFA scientist whining in his scrambled eggs that "someone needs to do the science."

The young cognitive scientist was a Norwegian, named Preben Wik, who authored the only paper at the whole conference that embraced the twin pillars of cetacean language and interspecies communication. He had asked his provocative question only after a lot of personal soul-searching, trying to comprehend why his well-constructed thesis had been kept off the podium, and relegated to the poster section of the conference.



Hydra species, Matthaus Merian, 1670

Permit an excerpt from his abstract. "Dolphin sound production is incompatible with human linguistic sounds. This interface problem must be addressed and overcome somehow if two-way communication between humans and dolphins is ever to take place. The purpose of my thesis is not to prove that dolphins can acquire language, but to make that investigation possible by providing a new tool. The model is based on previous animal behavioral research in combination with linguistic theory. [What I have named] GAPR (for closing the gap) software is a tool for classifying and translating arbitrary audio patterns into symbolic representations and for linking combinations of these symbols into words. It can be used to set up a language structure, and to run a real-time translation for dialog and games."

Wik seems to be the only PhD cognitive scientist any where who is currently exploring cetacean language with wild free-swimming whales. In other words, he is the only one of his peers who is not also a prison warden of captive dolphins. It suggests that he may also be the only one creative enough to relinquish some iron-fisted control in the service of reaching out as a fellow game player to these very gregarious animals who express themselves best within their own free-swimming social context.

Preben received a rebuke for this effort, mostly because his elders insist that their own manipulative training methodology – that which they hyperbolize as dolphin language research – remain the only game in town.

My Turn

By the time my turn came to speak at the podium, I was unsure how to communicate the semantic issues of whale cultural studies, a field struggling with a neo-language of whale songs, clans, dialects, rhymes, intellect, sentience. As hot new words get introduced to the lexicon of biology, they increasingly blur the border between human culture and whale culture. Eventually, no one will be able to tell the difference.

I had my sound bites memorized. For instance, do large brains think large thoughts? If so, what large thoughts are they thinking about us? And whereas today's whale map is inscribed onto a silhouette of a photograph of the perfect orca in the perfect leap, tomorrow's map might be drawn over an ancient petroglyph displaying a shaman and a whale singing together. Today we argue over words like "clan". In twenty years maybe we'll be debating the terms of the UN protectorate called the Cetacean Nation. Today, we discover that humpback songs possess rhyme. Tomorrow we'll notice that some songs are more passionate than others. Some are cool. Others hot. Some are even banal. But they have a good beat and you can dance to it.

Rite of Spring

When I was a kid in the 1950's, I was taught that scientists were our ambassadors to nature. What they told us about the animals, we all believed was true.

I propose that the whales themselves might be understood as the new ambassadors to nature. Regard the many ways that cetaceans are sabotaging the dated anthropocentric, industrial definition of animals. Eventually it will lead us to understand that whatever intellect the whale nation possesses, the rest of nature possess it as well.

As expected, a third of my audience walked out on my talk in the first fifteen minutes. But I had a conceptual release valve in mind, to keep my mouth muscles flapping as I stood before the most skeptical audience of my life. As people headed

Male and female fishman, Matthaus Merian,

for the exit, I visualized the first production of Stravinsky's *Rite of Spring*, in 1912, in which the audience threw so many rotten tomatoes at the maestro, that the performance was halted before it concluded.

At least I got to finish. By then, there was nary a person left in the room with gray hair. But the young audience that remained applauded wildly, Many of them stayed on to discuss my concluding idea of a holistic whale research that merges biology, anthropology, and music.

I was exhausted. But I felt more certain than ever that Max Planck had gotten it right.

The Whaling Manual

The Japanese Whaling Industry has been developing a new strategy over the past few years, based on the premise that more whales need to be killed because they eat too many fish that human beings need to be eating in an overpopulated world. Interspecies recently received, from fellow activist Dan Morast, a White Paper commissioned by the industry to further this claim. Everyone with an interest in the welfare of cetaceans needs to know just how much the whales are still not protected, despite their worldwide endangered status. Here's an edited excerpt.

Report of the Institute of Cetacean Research, Japan

Fisheries production by Japan reached the 12 million tons mark during the second half of the 1980s but thereafter decreased drastically to the recent 6 million tons level. For a fish-eating people like the Japanese, the seriousness and solution of this problem is a matter of the greatest concern and interest. The Whale Research Program conducted by Japan since 1994 showed that food consumed by whales includes an enormous amount of valuable fishery resources, thus giving concrete evidence that whales compete directly and indirectly with fisheries.

The second phase of the Whale Research Program started by Japan last year, is an epoch-making research project in quest of further deepening our understanding of the issue of competition between cetaceans and fisheries. It provoked international friction originating from the anti-whaling countries, which see this very project as a menace to their perceptions. The United States of America invoked a merely domestic law — the Pelly Amendment — to threaten Japan with economic sanctions while UK, Australia, New Zealand and others toeing the U.S. line raised an uproar.

However, the Government of Japan, fully aware of the project's legitimacy and necessity, reacted resolutely against the intimidation and meddling from those countries. Owing to that, the research program was scrupulously executed, and though only at its first year as a feasibility study, already from the inception the research is producing excellent results.

The 1972 U.S. Marine Mammal Protection Act of the (MMPA) prohibits U.S. citizens anywhere, and anyone within the territorial jurisdiction of the U.S., to import, use, cull, incidentally take, injure or harass marine mammals. One will be quick to note that the Act establishes a double standard for marine mammals and terrestrial mammals. It provides an oxymoron as its stated purpose of maintaining marine mammals at optimum sustainable population levels can not be achieved through prohibition of use and culling.

The Act conflicts with U.S. fishery laws and regulations that obligate resource management authorities to maintain fishery resources at optimum yield levels. The conflict arises because marine mammals are far more effective predators of fish than fishermen, consuming more than 5 times the quantity of marine resources as are caught to feed humans. Because most species of protected marine mammals are increasing in numbers, they will inevitably take that much more fish.

Undoubtedly, the MMPA is an extraordinary product of the extraordinary age that spawned the Vietnam war and allowed industrial societies to indulge in rampant environmental destruction. The MMPA is only understandable as the reflection of the anger and misplaced compassion of people to whom the massive loss of humans, animals, and plants that they witnessed in the 1970s was unacceptable. The Act also reflects two stark facts. (1) the relative lack in the U.S. of serious political, social and economic interest in the use of marine mammals or, for that matter, other marine food resources, and (2) the effectiveness of the well-funded and well-organized campaigns by wealthy animal protection groups that lobby against these uses.

Compared with Japan and other traditional fishing nations, the U.S. has no tradition or need to seek food from the sea. Fisheries there have always been relatively marginal existence on the national scene and have presented no more serious opposition than could be hushed by opening specific windows of exception under the MMPA as in the case of continuing hunt of endangered bowhead whales in

Alaska or the massive incidental killing of dolphins and porpoises in the tuna purse-seining operations throughout the 1970's and early 1980's. Other anti-whaling nations, such as the UK, Netherlands, Germany, Austria, Switzerland, Monaco, Brazil, Argentine, Australia, New Zealand and others are in the same boat. They are meat eaters, some of them being world's largest meat exporters, and their per capita consumption of fish is among the lowest in the world. Simply, these will be the last nations to look for the sea for their food when the world's population reaches an even more critical stage later in this century.

This being the case, the anti-users disregard and turn their blind eyes to the scientific reality that no use impacts heavily on the marine environment, sea-food production and fishermen. The U.S. does not need to look far to see the ecosystem havoc in their 200 mile economic zone thirty years after the enactment of the MMPA. Deaths in hundreds, if not thousands, of Californian gray whales, radical decline of Pribiloff fur seals population and the Steller sea lion in Alaska, and collapse of Canadian Atlantic cod fisheries are just a few such examples.

The case of Californian gray whales in California is the tragedy of overpopulation that currently counts the population at the highest in its history at 26,000. The reported number of dead bodies washed ashore in 1999 amounted to approximately 300. Taking into account those unreported and those that died at sea, the death toll would be easily many times this number. Lack of stomach contents and much reduced blubber thickness is tell-tale evidence of their chronic hunger indicating that the present population exceeds the environment's carrying capacity.

Polls in the U.S. and other anti-whaling nations also demonstrate that 71 percent of the U.S. respondents said they would endorse regulated whaling for minke whales. The same poll found that only six percent of the U.S. and Australian respondents opposed to whaling on the grounds of animal rights. These results are not surprising, as people personally benefit from the slaughter of large numbers of farm animals and lawful hunting of land-animals either for recreational or commercial purposes as in the case of kangaroos in Australia and deer in the U.S. and the UK.

Leading newspapers in the radical anti-whaling nations are also getting increasingly sharp-tongued in their criticism of their government's Machiavellian attitudes. The Times (London) carried an editorial on the June 30, 1992, issue, titled "How not to save the whales". It said, "Whaling countries are entitled to accuse the anti-whaling majority of nations in the IWC of changing the rules half way through the game." It further pointed out that "the welfare of animals, be they African elephants or Spanish bulls (or fox and deer in the UK) is a matter of domestic legislation and animal cruelty is not something it is appropriate to ban by international agreements, particularly when drawn up for other purposes."

Political opportunism and repeated illegal actions by the anti-whaling nations have reduced the IWC to an almost meaningless and irrelevant existence. The current management plan, developed by a scientist known to be closely working with radical anti-whaling organizations, is so restrictive that in the case of the abundant minke whale resource in the Antarctic, estimated by the IWC Scientific Committee in 1990 at 761,000, the annual allowable harvest would be about 2000 or 0.27% of the population in the area. It is inconceivable that this small harvest would adversely affect the population.

If the anti-whaling members of the IWC are unable to acknowledge the validity of these points, the demise of the IWC will be a *fait accompli*. The IWC will then go down in history as the height of folly and political irresponsibility on the part of the anti-whaling majority and their NGO supporters. We cannot trivialize this matter as limited only to whales. Such collapse will demonstrate their collective incompetence to resolve any of the present political, economic and environmental issues, where negotiation, rather than brute force, is required.

Interspecies News

Next on the Interspecies agenda of presentations and performances explaining our work, are two swimming pool concerts performed by Interspecies director Jim Nollman and Seattle performance artist Christian Swenson. The first one, actually three shows over two days, will occur in April, in Kodiak Alaska, as part of that city's annual Whalefest.

The next event occurs in Berlin Germany in June, at the Liquidrom, which is billed as the only underwater performance theater on Earth. The audience for this show will be an invited gathering of NGOs swimming with the Japanese delegation to the International Whaling Commission which is holding its annual meeting in Berlin at the same time. A second Berlin show is in discussion, specifically for the assembled Media on hand to report on the IWC meeting.

We hope to provide a unique aesthetic experience about sound in the oceans, with the audiences swimming above and underwater. Air speakers are hung at each corner, underwater speakers at the ends of the pool. The show will consist of several scenes, including poetry about whales, a brief lesson demonstrating all the ways human beings have ever used water to produce music, an annotated playlist of oceanic sounds including earthquakes, fish, crustaceans, and many whales. It ends with an extended improvization based on sampled whale calls, electronic instruments, and voice.

Help us Please

It seems important to inform our newsletter's readership that 2003 is shaping up to be the driest fundraising year in a decade. We regard the current lack as mostly a function of the sorry state of the economy and the general fear level in the world, rather than as a reflection of our program, which continues to chug along as always.

We need some new sources of income to keep our programs going at full tilt, perhaps some new donors, new foundations, fresh ideas and/or volunteers to help us raise money. For one good example, a longtime member has graciously decided to market our CD, *Orcas Greatest Hits*, by driving around to book and music stores in the Seattle area, asking them to carry it. It would be great if others would agree to this.

If any readers are in a position to help us thrive in this crazy time, please email Interspecies at beluga@interspecies.com.

Book Reviews

The Life of Pi

By Yann Martell, Harcourt Inc. NYNY, 2001

The book has been winning lots of awards. It's the story of an adolescent Indian boy stuck on a lifeboat adrift on the Pacific ocean with a tiger, a zebra, a hyena, and an orangutan. Everything but the boy and the tiger quickly meet their end. Perhaps strangely, how the two survivors endure on a 26 foot boat for 6 months, is a wondrous tale reminiscent of an odd mix of The Little Prince and a training manual for a lion tamer. The more surreal moments are breathtaking, especially when they land briefly on an island composed entirely of a miraculous seaweed that turns deadly when the sun goes down. It's easily the best animal read of the year.

...Getting animals used to the presence of humans is at the heart of the art and science of zoo keeping. The key aim is to diminish an animal's flight distance, which is the minimum distance at which an animal wants to keep a perceived enemy. A flamingo in the wild won't mind you if you stay more than three hundred yards away. Cross that limit and it becomes tense. Get even closer and you trigger a flight reaction from which the bird will not cease until the three hundred yard limit is set again, or until heart and lungs fail. Different animals have different flight distances and they gauge them in different ways. Cats look, deer listen, bears smell. Giraffes will allow you to come to within thirty yards if you are in a motor car, but will run if you are a hundred and fifty yards away on foot. Fiddler crabs scurry when you're ten yards away; howler monkeys stir in their branches when you're at twenty; African buffaloes react at seventy five.

...We commonly say in the trade that the most dangerous animal in the zoo is Man. In a general way we mean our species excessive predatoriness has made the entire planet our prey. Specifically, we have in mind the people who feed fishhooks to the otters, razors to the bears, apples with small nails in them to elephants.

...Tigers make a variety of sounds. They include a number of roars and growls, the loudest of these being most likely the full throated *aaonh*, usually made during the mating season by males and oestrous females. It's a cry that travels far and wide, and is absolutely petrifying when heard close up. Tigers go *woof* when they are caught unawares, a short, sharp detonation of fury that would instantly make your legs jump up and run away if they weren't frozen to the spot.

Thieves, Deceivers, and Killers

Tales of Chemistry in Nature
By William Agosta, Princeton U Press, 2001

A detailed explanation of how plants and animals have developed the means to produce distinct chemical weapons in the form of pheromones, poisons, and even medicines. There is an especially vivid account of some of the ways ants use scent both for communication and for defining social structure. It makes one consider pheromone sensitivity as an analog to the sensitivity of humans to phonemes.

...Assassin bugs feed on tiny stingless bees and other small insects. They collect *damar* and smear it on their front legs. After coating its legs, and assassin bug takes up a position on a tree trunk to await its prey, with its head downward and *damar*-coated forelegs extended to form a sticky trap. If it careless insect stumbles into the trap it gets stuck, and becomes the bug's next meal.

...Turnips owe their distinctive flavor to sulfur-containing defense compounds, as do broccoli, horseradish, and other members of the cabbage family. One of these sulfur compounds called *sinigrin* makes turnips distinctly unpalatable to most herbivores. However there are tiny greenish aphids that are turnip parasites, and *sinigrin* affects these insects quite differently. They like its taste. Far from being a deterrent for them, it is a powerful stimulant that promotes feeding...Turnip aphids bio-chemically convert ingested *sinigrin* into an important component of their own alarm pheromone.